

United States of the Division of Plant Biology of the Carnegie Institution. The units that compose this group are planned for research in plant taxonomy, experimental plant-growing, and biochemistry, and consist of a main two-story laboratory and library building, a preparation house, and a greenhouse with adjacent transplant and culture gardens. In the future this laboratory will coordinate and centralize the more general aspects of biological research being conducted at the Desert Laboratory at Tucson, Arizona, the Coastal Laboratory at Carmel, California, and the Alpine Laboratory at Pike's Peak, Colorado, as well as a number of experimental bases throughout the western United States.—J. T. HOWELL.

NOTES AND NEWS

From April to August Professor W. A. Setchell of the University of California, was away from California as a delegate to the Fourth Pan-Pacific Congress held in Java in May and June, 1929.

Dr. Charles V. Piper, of the United States Department of Agriculture, died at Washington, D. C., February 11, 1926. His *Flora of the State of Washington*, published in 1906, was followed by a *Flora of Southeastern Washington* (1914) and a *Flora of the Northwest Coast* (1915). The two latter were produced in collaboration with R. Kent Beattie. Able and vigorous as a scientist, endowed with a strong personality and a fine presence, he was justly considered one of the most gifted men in the Bureau of Plant Industry.—W. L. J.

In *Science* (67: 447) an announcement of the determination of living ray and tracheid cells over 250 years old is made by Dr. D. T. McDougall and Mr. J. G. Brown.

Inez Mexia, botanical collector of the University of California, and Agnes Chase, of the Bureau of Plant Industry of the United States Department of Agriculture, left during October for extended field work in Brazil.

The following papers have been recently issued from the Department of Botany of Pomona College: The genus *Corethrogyne* in Southern California by Margaret L. Canby (*Bull. S. Cal. Acad. Sci.* 26:8-16—1927); Studies in Onagraceae, *Oenothera-Chylismia*, by P. A. Munz (*Am. Jour. Bot.* 15:223-240,—1928); Studies in Onagraceae, *Oenothera-Sphaerostigma* by P. A. Munz (*Bot. Gaz.* 85:223-240,—1928); The *Plantago patagonica* group of the United States and Canada by Ione Poe (*Bull. Torr. Club.* 55:406-420,—1928); A revision of the genus *Zauschneria* by Martha Hilend (*Am. Jour. Bot.* 16:56-68,—1929); A revision of the genus *Collinsia* by Vesta M. Newson (*Bot. Gaz.* 87:260-301,—1929).

The latest number (vol. 1, no. 3) of "Contributions from the Dudley Herbarium", Stanford University, establishes a new genus of Saxifragaceae, *Bensonia* (Abrams and Bacigalupi), from southwestern Oregon, contains a paper by Elmer I. Applegate on two new *Downingias* from southern Oregon, and another paper by Ira L. Wiggins describing four new plants from San Diego Co. The issue is dated May 20, 1929.

Two papers dealing with Pacific Coast fossil plant beds were published in 1927 by the Carnegie Institution. One on the "Geology and Paleontology of the Crooked River Basin" in Oregon is by Dr. Ralph W. Chaney. The other "Fossil Records of some West American Conifers" is by Mr. H. L. Mason.

A volume of 163 pages makes up the fifteenth number of "Contributions to Western Botany" by Marcus E. Jones. It was distributed from Claremont, California on June 6, 1929 and consists of botanical observations and criticisms, reviews of literature old and new, and miscellaneous field observations. It is a typical Jonesian contribution characterized by a pungent style, a type rarely met in these days but so abundantly present in numerous critiques of the old biological journal "Zoe".—J. T. H.

"The Role of the Structural Features of Pollen Grains in Identifying the most Important Hay Fever Plants of California" is the subject of a paper by George Piness M. D. and H. E. McMinn of Mills College in the "Journal of Laboratory and Clinical Medicine" (St. Louis, 1927).

The interesting marine angiosperm, Eel Grass (*Zostera marina* L.), found in shallow coastal lagoons and shoals along the California coast and elsewhere in temperate regions has been investigated ecologically and morphologically by Dr. W. A. Setchell of the University of California and the results of the studies have appeared in the two following contributions: *Zostera marina latifolia*—Ecad or Ecotype (Bull. Torr. Bot. Club 54: 1-6,—1927); Morphological and Phenological Notes on *Zostera marina* L. (U. C. Publ. Bot. 14: 389-452,—1929).

Contributions to our knowledge of the physiology and life histories of some California fungi have been made by Dr. Lee Bonar of the Department of Botany, University of California, in *Mycologia* 20: 292-300 (1928).

In the Botany of *Ephedra* in Relation to the Yield of Physiologically Active Substances by G. W. Groff and G. W. Clark (U. C. Publ. Bot. 14: 453-588,—1929), a taxonomic consideration of certain North

American species of the genus *Ephedra* precedes an account of the physiological effects of medical substances derived from plants of the genus.

Preliminary to a complete treatment of the Red Algae of the Pacific Coast of North America, Dr. N. L. Gardner has four contributions on New Rhodophyceae in U. C. Publ. Bot. vols. 13 and 14. Other recently published researches in the morphology and taxonomy of Pacific Coast algae include: Drew, K. M. A Revision of the Genera *Chantransia*, *Rhodochorton*, and *Acrochaetium*, with Descriptions of the Marine Species of *Rhodochorton* on the Pacific Coast of North America (U. C. Publ. Bot. 14: 139-224,—1928); Myers, M. E. The Life-History of the Brown Alga, *Egregia Menziesii* (U. C. Publ. Bot. 14: 225-246,—1928); Setchell, W. A. The Genus *Microdictyon* (U. C. Publ. Bot. 14: 453-588,—1929).

Two contributions to our knowledge of the exotic flora of California have come recently from the Department of Botany of the California Academy of Sciences in San Francisco. In the *Escallonias* in Golden Gate Park, with Descriptions of New Species (Proc. Cal. Acad. Sc. 4th ser. 18: 385-391,—1929), Alice Eastwood describes the distinguishing characters of most of the species commonly cultivated, not only in the Golden Gate Park, but rather generally throughout California. Eric Walther's Key to the Species of *Eucalyptus* Grown in California (Proc. Cal. Acad. Sc. 4th ser. 17: 67-87,—1928) is a contribution to a more ample knowledge of the taxonomy of this genus so widely and extensively cultivated in California.

In an account entitled *Studies in the Flora of Lower California and Adjacent Islands* (Proc. Cal. Acad. Sc. 4th ser. 18: 393-484,—1929), Alice Eastwood reviews the botanical exploration of the islands off Lower California and of several localities on the mainland, and gives the names of species that have been reported for each. This report will form a basis for further studies of these southern areas that are closely related botanically to our own California flora.

Three new species of *Ceanothus*, two species from California and one from Utah, have been described by Alice Eastwood (Proc. Cal. Acad. Sc. 4th ser. 16: 361-363,—1927). One of the California species, *C. cyaneus*, is found in the mountains of San Diego Co. while the other, *C. insularis*, comes from Santa Cruz Island.

An article on Certain Fossil Cones from the Pacific Coast by F. M. Scott of the University of California at Los Angeles (Bull. Torr. Bot. Club 54: 7-11,—1927) describes coniferous material from various stations on the Pacific Coast of North America.

A Preliminary Report on the Flora of the Charleston Mountains of Nevada by Edmund C. Jaeger, recently published at the River-

side Junior College, is of interest to California botanists because of the close relationships between the flora of the Charleston Mountains and of the high desert ranges of eastern and southern California.

The genus *Haplopappus* is the title of a Carnegie Institution Publication, no. 389 (Washington, 1928, pp. 1-391), by Dr. H. M. Hall. This paper is an intensive and thoroughgoing study of a group that has a large representation in western America. There are 114 figures and 16 plates.

"A Systematic Study of the genus *Lessingia* Cham." has been completed by John Thomas Howell (Univ. Cal. Publ. Bot. 16:1-44, figs. 1-70,—1929). The author recognizes seven species and a considerable number of varieties, of which three are new. For specific criteria reliance has been placed chiefly on gland character, structure of style branches and habit. The author considers that the Tehachapi region represents the geographic center of the genus.

A REVISION OF CALIFORNIAN UMBELLIFERAE.—V.

WILLIS LINN JEPSON

(Concluded from page 162)

1 or 2, linear-acuminate; fruit broadly oblong, slightly pubescent, 3 to 4 lines long; lateral wings thick and corky, as broad as the body; oil-tubes solitary in the intervals; seed deeply sulcate beneath the oil-tubes.—Along the coast, mostly on or near the sea-bluffs, 5 to 200 ft.: San Mateo Co. to Humboldt Co. North to Wash.

Locs.—Pt. Lobos, San Francisco, (Fl. W. Mid. Cal. 356); Pt. Reyes, *Davy* 6869; Newport, Mendocino Co., *Jepson* 13,487; Loleta, Humboldt Co., *Jepson* 2133.

Refs.—ANGELICA HENDERSONI C. & R. Bot. Gaz. 13: 80 (1888), type loc. Long Beach, Ilwaco, Wash., *Henderson* 2158; *Jepson*, Man. 727, fig. 711 (1925).

2. *A. tomentosa* Wats. Stout, 2 to 5 ft. high, the stems and especially the leaves puberulent, or sometimes nearly glabrous; leaves bipinnate or ternate or quinate and then pinnate; leaflets ovate, acute, acutish or often long-pointed, sometimes varying to lanceolate or roundish, irregularly serrate, obliquely 2-lobed, or not lobed and merely oblique, $1\frac{1}{2}$ to 3 (or 6) in. long; petioles strongly dilated at base; fruiting rays 1 to 5 in. long; fruiting pedicels 2 to 3 lines long; ovary tomentulose; fruit oblong or elliptic, glabrous, 3 to $4\frac{1}{2}$ lines long; dorsal and intermediate ribs small and acutish; lateral wings nearly equaling the body in breadth; oil-tubes 1 in the intervals, or sometimes 2 in the lateral intervals, mostly 2 on the commissure; seed somewhat sulcate beneath the oil-tubes.—Dry woods, 300 to 4000 ft.: coastal S. Cal.; n. through the Coast Ranges to Humboldt Co.

Locs.—French Valley, Palomar Mt.; Mt. San Jacinto (Univ. Cal. Publ. Bot. 1:98); San Bernardino Mts. (Pl. World 20: 247); West Fork Cucamonga Cañon, San Gabriel Mts.; Big Pine Mt., Santa Barbara Co., *J. R. Hall*; Berkeley, *H. A. Walker*; Mt. Tamalpais, *Jepson*; St. Helena, *Jepson* 13,483; Calistoga, *Jepson* 13,484; Peanut, Trinity Co., *J. W. Patton*; Eureka, *Tracy* 6902; Alton, Humboldt Co., *Tracy* 6560.

Var. CALIFORNICA *Jepson*. Rays very unequal ($1\frac{1}{4}$ to $5\frac{1}{4}$ in. long), scaberulous at the ends; oil-tubes 2 (or 3) in the intervals, mostly 4 in lateral pairs on the commissure.—Vaca Mts.

Refs.—ANGELICA TOMENTOSA Wats. Proc. Am. Acad. 11:141 (1876), type loc. San Francisco; *Jepson*, Man. 728 (1925). Var. *elata* *Jepson*, Fl. W. Mid. Cal. 356